

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : September 24, 2001
Chapman : Group Art Unit: 1773
Serial No. 09/350,060 : Examiner: P. Thibodeau
Filed: July 8, 1999 : Docket No.: W9443-02
For: Ink-Receptive Coatings and
Recording Medium Prepared Therefrom

REQUEST FOR RECONSIDERATION

Honorable Director of Patents and Trademarks
Washington, D.C. 20231

Sir:

Applicant respectfully requests reconsideration and withdrawal of the rejections stated in the May 22, 2001, Office Action. The period for response thereto has been extended by one (1) month to September 22, 2001, in view of the enclosed Request for Extension of Time and authorization therein to charge the appropriate fee to Deposit Account 07-1770.

The rejections stated in the September 19, 2000, Office Action have been maintained. Applicant, however, respectfully requests reconsideration and withdrawal of those rejections. It is submitted that they are based on reading technical disclosure into those references that are simply not there.

For example, claims 1-3, 5-8, 13-20, 23, 24, and 27-30 are rejected under 35 USC §103 as being unpatentable over Stokes et al. in view of Alexander et al. It is stated in the Office Action that Stokes discloses using polyvinyl acetate as a latex polymer and further states that polymer is "equivalent" to the non-ionic latex polymer of the claimed invention. The Examiner then takes the position that the use of polyvinyl acetate would lead to equivalent results absent of a showing of

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

Pursuant to 37 CFR §1.8, I hereby certify that I have a reasonable basis to expect that this correspondence will be deposited with the United States Postal Service on or before the date indicated, as First Class mail, in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

September 24/2001
Date

Victor Shaw
Signature



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criticality. Applicant submits, however, that polyvinyl acetate does not necessarily mean non-ionic polyvinyl acetate. Indeed, Applicant earlier submitted a document from Rohm & Haas showing that anionic vinyl acetate polymers are available to those skilled in the art. Stokes' references to polyvinyl acetate could refer to those polymers. Moreover, the Examiner has provided no basis for the statement that non-ionic polyvinyl acetate polymers are equivalent to ionic forms of the same polymer. Indeed, there is simply no suggestion of non-ionic polymers in Stokes, and it is respectfully submitted that it is improper to put the burden on a patent applicant to show that it does not disclose or suggest non-ionic polyvinyl acetate.

In any event, and contrary to statements in the Office Action, it is also submitted Applicant has shown that non-ionic polyvinyl acetate provides for a coating formulation having properties superior to those coatings prepared from anionic polymers. See Example 5 and Figures 1-3. Figure 1 shows that a non-ionic latex-based formulation has a lower formulation viscosity on an equal solids basis compared to an anionic polymer latex-based formula. Figure 2 shows that the non-ionic latex also provides better color appearance, and Figure 3 shows better dry times for the non-ionic latex-based formulation. Accordingly, it is submitted Applicant has overcome any burden of overcoming a *prima facie* case of obviousness based on Stokes and requests that the Examiner withdraw the §103 rejection based on that reference.

It also is submitted a technical feature is being improperly read into the Alexander et al. reference. Alexander et al. discloses colloidal silica that has been rendered cationic. Alexander et al. do not disclose that their particles have porosity, and it is submitted that it is not Applicant's burden to show that they do not. Indeed, the Alexander et al. refers to dense spheres of silica on column 3, lines 11 and 20. There it is stated that if the silica particles are dense, *rather than porous*, and it is submitted that this statement suggests that they are utilizing dense silica particles rather than porous particles. Accordingly, even if the teachings of Alexander et al. are combined with those of the references mentioned above, one would not arrive at Applicant's invention.

Moreover, and as stated earlier by Applicant, colloidal materials such as that disclosed by Alexander et al. are generally known to be non-porous. Applicant earlier submitted pages from Iler's "The Chemistry of Silica" to support

this assertion. Applicant now also encloses a page from a Ludox[®] colloidal silica bulletin. Therein it states Ludox[®] colloidal silica has *no* internal surface area. This refers to surface area from pores internal to the particles, and therefore means such particles are non-porous. Applicant submits that the Examiner, on the other hand, has not provided any basis for countering Applicant's position that the silica in Alexander et al. is non-porous. To state that Alexander et al.'s particles are porous is more than likely the result of hindsight reasoning.

It is also submitted the Examiner's reference to the statement in Iler that colloidal silica is generally non-porous if grown in alkaline solution and formed at elevated temperature does not counter Applicant's position, because it is submitted a substantial number of colloidal silicas are made using such processes. Indeed, Alexander et al. mentions several patents in column 2, lines 71-72, as describing the process for making colloidal silica. Those patents are enclosed and it is submitted that all disclose making relatively non-porous colloidal silica under alkaline conditions at elevated temperatures. See enclosed U.S. patents 2,573,743; 2,750,345; and 2,515,960.

It is also submitted that the statement that a density of 2.0 - 2.3 g/cm³ is equivalent to 2.0-2.3 cc/g. Applicant respectfully disagrees. Density and porosity, generally, are inversely related and accordingly increasing porosity results in *less dense* material. Applicant has enclosed a page from Kirk-Othmer's Encyclopedia of Chemical Technology providing densities of porous silica gels to illustrate the densities of materials known to be porous. Those densities are significantly less dense than that reported in Iler. This is consistent with suggestions made by Alexander et al. on column 3, line 20, that dense materials are less porous. Therefore, there is no basis for alleging that the materials having densities reported by Iler have the porosity of the material used to make Applicant's invention.

It is submitted that the rejections, based on Abe et al. is based on a similar improper reasoning. Abe et al. also discloses non-porous colloidal silica-based pigments and the Examiner is again making an unsupported assertion that Abe's colloidal materials are porous. This assertion is simply not supported by the express description in Abe and runs contrary to the general recognition in the art mentioned above that these materials are not porous. In the event that the Examiner is relying on personal knowledge that the colloidal silicas described in

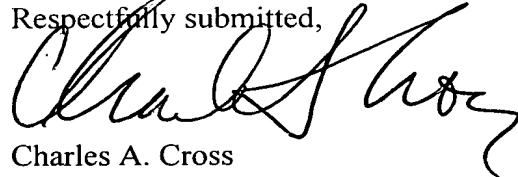
Abe or Alexander et al. are porous, Applicant respectfully requests a declaration in support of that position, or a copy of the prior art publications showing that fact. Currently, the Applicant is not aware of any documents that would support the position that Abe's cation-modified silica *must* have the claimed pore volume recited by Applicant.

The Koch reference goes no further than those discussed above in suggesting Applicant's high solids content formulation having the properties recited in claim 1. Even in light of Koch's reference to pigments having pore volumes between 0.1 and 0.9 cc/g, Koch does not disclose one can obtain high solids content of such materials when using non-ionic latex, and at the same time the advantageous print properties shown by Applicant's invention. It is further submitted Koch does not suggest obtaining high solids contents of highly porous pigments having porosity in the range of 0.9-2.5 cc/g as recited in Applicant's claim 6. Indeed, the Examiner appears to have acknowledged the same by not rejecting claim 6 based on the Koch reference.

As submitted in Applicant's March correspondence, the Vassiliades et al. reference merely discloses core/shell polymers and does not go any further than the above references in suggesting Applicant's invention, either alone or in combination with the earlier mentioned references. Briefly, there is no mention by Vassiliades of non-ionic latex polymers nor any suggestions therein that those polymers can be used to improve the solids content of a porous pigment-containing formulation, or used to otherwise improve the print quality of a coated paper when such polymers are employed in a coating formulation.

In view of the above, Applicant again submits that his claims are in condition for allowance and respectfully requests notification to that effect in the form of a Notice of Allowability.

Respectfully submitted,



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